

IN THE CLAIMS

Please cancel Claims 1-13 and 19, amend Claims 14-18, and add Claims 20-42 as follows, all without prejudice or disclaimer.

1-13. (Cancelled).

14. (Currently Amended) A ~~[[S]]~~system for transmitting signals, ~~e.g. control signals, request signals, interrogation signals, etc. comprising at least two units, wherein at least one of said units is designed to operate as a master unit and wherein at least one of said units is designed to operate as a slave unit,~~

~~whereby said units are designed in order to be able to use a plurality of channels for the transmission,~~ on a plurality of transmission channels, the system comprising:

~~whereby a master unit is designed~~ configured to perform the steps of detecting detect a vacant channel among a plurality of transmission channels and to transmitting a signal via said on the vacant channel[[,]] ; and

~~whereby said at least one slave unit is designed~~ configured to perform the step of scanning the channels for the transmitted signal[[s]],

~~wherein~~

~~said the signal transmitted by said the master unit comprises~~ defining a preamble having a length corresponding at least to the time required for said the at least one slave unit to test said the channels for [[a]] the transmitted signal, and wherein

~~said at least one slave unit performs the step of testing said channels for a transmitted signal by testing said the preamble for having a predefined characteristic, e.g. a symbol, a bit sequence etc., said predefined characteristic comprising~~ with system

specific information indicating to the slave unit that the ~~message~~ transmitted signal is a message originates originating from a master unit related to the same system.

15. (Currently Amended) A ~~[[S]]~~system according to claim 14, ~~characterized in that said wherein the~~ at least one slave unit is ~~designed~~ further configured to, when having detected ~~said the~~ predefined characteristic, interrupt the scanning and ~~perform a~~ test ~~[[of]]~~ the received message for an address.

16. (Currently Amended) A ~~[[S]]~~system according to claim 14, ~~characterized in that said at least one unit designed to operate as a master unit comprises~~ further comprising control means for performing a scan of ~~a plurality of the~~ channels.

17. (Currently Amended) A ~~[[S]]~~system according to claim 16, ~~characterized in that said wherein the~~ control means ~~comprises~~ include means for operating in accordance with predefined algorithms.

18. (Currently Amended) A ~~[[S]]~~system according to claim 14, ~~characterized in that said at least one unit designed to operate as a~~ wherein the slave unit ~~comprises~~ includes control means for performing a sequential scan of the plurality of channels.

19. (Cancelled).

20. (New) A method of transmitting signals in a control system having at least two units operating on a plurality of transmission channels, one of the units operating as a master unit and the other of the units operating as a slave unit, the method comprising the steps of:

detecting a vacant channel among a plurality of transmission channels by a master unit;

transmitting a signal by the master unit via the vacant channel;

scanning the transmission channels by a slave unit for a transmitted signal;
detecting the transmitted signal on the vacant channel by the slave unit, the transmitted signal having a preamble with a length corresponding at least to a period of time required for the slave unit to test the transmission channels; and

testing the preamble by the slave unit for a predefined system specific characteristic to indicate to the slave unit that the transmitted signal originates from a master unit related to the same control system.

21. (New) The method according to Claim 20, wherein the signal is selected from the group consisting of control signals, request signals, interrogation signals and combinations thereof.

22. (New) The method according to Claim 20, wherein the plurality of transmission channels is from two to fifteen.

23. (New) The method according to Claim 20, wherein the step of detecting the vacant channel includes testing for a carrier wave.

24. (New) The method according to Claim 20, wherein the master unit detects the vacant channel by scanning the plurality of channels in accordance with a predefined algorithm.

25. (New) The method according to Claim 24, further comprising the step of accounting by the master unit for previous transmissions.

26. (New) The method according to Claim 20, wherein the slave unit performs the step of scanning the transmission channels in sequential order.

27. (New) The method according to Claim 20, wherein the step of testing the transmission channels by the slave unit for the predefined characteristic is repeated at least once.

28. (New) The method according to Claim 20, further comprising the step of interrupting the scanning step when the slave unit detects the predefined system specific characteristic in the preamble of a received message.

29. (New) The method according to Claim 28, wherein the predefined system specific characteristic is one of a symbol, a bit sequence, a predefined number of bytes, a predefined content, and combinations thereof.

30. (New) The method according to Claim 28, wherein the interrupting step occurs when the predefined system specific characteristic is repeated at least once.

31. (New) The method according to Claim 28, further comprising the step of testing the received message for an address.

32. (New) The method according to Claim 31, further comprising the step of resuming scanning of the transmission channels by the slave unit for transmitted signals if the received message does not include an address corresponding to an address for the slave unit.

33. (New) The method according to Claim 20, further comprising the step of waiting by the master unit after transmitting the signal for a reply from the slave unit.

34. (New) The method according to Claim 20, further comprising the step of resuming the step of detecting the vacant channel by the master unit when no reply or an erroneous reply is received.

35. (New) A control system for transmitting signals, comprising:

a system master unit for detecting a vacant channel among transmission channels, the system master unit configured for transmitting a signal on the detected vacant channel; and

a system slave unit configured for electronic detection of a plurality of master units including the system master unit, the system slave unit further configured for electronic communication with the system master unit, wherein the system slave unit is configured for scanning the transmission channels for a transmitted signal from the plurality of master units including the system master unit, the system slave unit further configured to test a preamble of the transmitted signal for a predefined system specific characteristic to indicate to the system slave unit that the transmitted signal originates from the system master unit, the preamble having a length corresponding at least to a period of time required for the system slave unit to test the transmission channels.

36. (New) The system according to Claim 35, wherein the signal is one of a control signal, a request signal or an interrogation signal.

37. (New) The system according to Claim 35, wherein at least one of the system master unit and the system slave unit are configured to test for a carrier wave.

38. (New) The system according to Claim 35, wherein the system master unit is further configured to detect the vacant channel by scanning the plurality of channels with transmissions in accordance with a predefined algorithm.

39. (New) The system according to Claim 38, wherein the system master unit is further configured to account for previous transmissions.

40. (New) The system according to Claim 38, wherein the system slave unit is further configured to scan the channels in a sequential order.

41. (New) The system according to Claim 35, wherein the predefined system specific characteristic is one of a symbol, a bit sequence, a predefined number of bytes, a predefined content, and combinations thereof.

42. (New) The system according to Claim 35, further comprising an address in the transmitted signal to indicate to the system slave unit that the transmitted signal is a message for the system slave unit from the system master unit, the address establishing electronic communication between the system master unit and the system slave unit.